

6.0 Other CEQA Considerations

6.0 OTHER CEQA CONSIDERATIONS

6.1 LONG-TERM IMPLICATIONS OF THE PROPOSED PROJECT

Pursuant to Section 15126.2 of the CEQA Guidelines, following is a discussion of short-term uses of the environment and the maintenance and enhancement of long-term productivity. If the proposed project is approved and constructed, a variety of short- and long-term impacts would occur on a local level. During project grading and construction, portions of surrounding uses may be temporarily impacted by dust and noise. Short-term soil erosion may also occur during grading. There may also be an increase in vehicle pollutant emissions caused by grading and construction activities. However, these disruptions would be temporary and may be avoided or lessened to a large degree through mitigation cited in this EIR and through compliance with the City of *Seal Beach Municipal Code* (Municipal Code); refer to Section 5.0, *Environmental Analysis*.

Ultimate development of the project site would create long-term environmental consequences associated with a transition in land use. Development of the proposed project and the subsequent long-term effects may impact the physical, aesthetic, and human environments. Long-term physical consequences of development include increased traffic volumes, increased noise from project-related mobile (traffic) and stationary (mechanical and landscaping) sources, hydrology and water quality impacts, and increased energy and natural resource consumption. Incremental degradation of local and regional air quality would also occur as a result of mobile source emissions generated from project-related traffic, and stationary source emissions generated from the consumption of natural gas and electricity.

6.2 IRREVERSIBLE ENVIRONMENTAL CHANGES THAT WOULD BE INVOLVED IN THE PROPOSED ACTION SHOULD IT BE IMPLEMENTED

According to Sections 15126(c) and 15126.2(c) of the *CEQA Guidelines*, an EIR is required to address any significant irreversible environmental changes that would occur should the proposed project be implemented. As stated in *CEQA Guidelines* Section 15126.2(c):

“[uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter likely, Primary impacts and, particularly, secondary impacts [such as highway improvement which provides access to a previously inaccessible area] generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.”

The project would consume limited, slowly renewable and non-renewable resources. This consumption would occur during the construction phase of the project and would continue throughout its operational lifetime. Project development would require a commitment of resources

that would include: (1) building materials, (2) fuel and operational materials/resources, and (3) the transportation of goods and people to and from the project site. Project construction would require the consumption of resources that are not replenishable or which may renew so slowly as to be considered non-renewable. These resources would include the following construction supplies: lumber and other forest products; aggregate materials used in concrete and asphalt; metals; and water. Fossil fuels such as gasoline and oil would also be consumed in the use of construction vehicles and equipment.

The resources that would be committed during project operation would be similar to those currently consumed within the City of Seal Beach. These would include energy resources such as electricity and natural gas, petroleum-based fuels required for vehicle-trips, fossil fuels, and water. Fossil fuels would represent the primary energy source associated with both construction and ongoing operation of the project, and the existing, finite supplies of these natural resources would be incrementally reduced. Project operation would occur in accordance with Title 24, Part 6 of the California Code of Regulations, which sets forth conservation practices that would limit the amount of energy consumed by the project. However, the energy requirements associated with the project would, nonetheless, represent a long-term commitment of essentially non-renewable resources.

Limited use of potentially hazardous materials typical of commercial and residential uses, including household and vehicle maintenance materials would be used and stored on the project site. The use of these materials would be in small quantities and used, handled, stored, and disposed of in accordance with the manufacturer's instructions and applicable government regulations and standards. Compliance with these regulations and standards would serve to protect against significant and irreversible environmental change resulting from the accidental release of hazardous materials. In addition, demolition activities would comply with regulatory requirements to ensure that asbestos and lead-based paints are not released into the environment. Compliance with such regulations would serve to protect against a significant and irreversible environmental change resulting from the accidental release of hazardous materials.

In summary, project construction and operation would result in the irretrievable commitment of limited, slowly renewable, and nonrenewable resources, which would limit the availability of these particular resource quantities for future generations or for other uses during the life of the project. However, continued use of such resources would be on a relatively small scale and consistent with regional and local growth forecasts in the area. As such, although irreversible environmental changes would result from the project, such changes would not be considered significant.

6.3 GROWTH-INDUCING IMPACTS

Section 15126.2(d) of the CEQA Guidelines requires that an EIR analyze growth-inducing impacts of a project. Section 15126.2(d) requires that an EIR:

“Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth [a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas], Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It

must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.”

The following discussion is structured to address the criteria provided in the CEQA Guidelines.

IMPACT ANALYSIS

Section 5.12, Population and Housing, identifies the existing population and housing for the County of Orange (County) and City of Seal Beach (City), and provides an analysis of potential impacts that may result from implementation of the proposed Specific Plan Amendment (the project). The proposed Specific Plan Amendment would amend the DWP Specific Plan boundaries and land use categories, as described in detail in Section 3.0, Project Characteristics. The project components also include amendments to the General Plan, Official Zoning Map, and Zoning Code, and a 48-lot residential subdivision (Tentative Tract Map [TTM] No. 17425), among others. The potential growth-inducing impacts resulting from project implementation are evaluated as follows:

Removal of an Impediment to Growth. The project site and surrounding area are fully developed and urbanized. Transportation and infrastructure exist to serve the range of recreational, commercial, and residential uses in the project vicinity. Given the built-out nature of the project area and developed infrastructure, the proposed project would not establish an essential public service or provide new access to an area. Therefore, the proposed project would not be considered growth inducing with respect to removing an impediment to growth.

Economic Growth. As stated above, the project involves open space and residential uses, but no long-term employment generating land use. Project implementation would not result in changes in revenue base or employment expansion. Therefore, the proposed project would not be considered growth inducing with respect to fostering economic expansion or growth.

Population Growth. A project could induce population growth in an area either directly or indirectly. The development of new residences or businesses could induce population growth directly, whereas the extension of roads or other infrastructure could induce population growth indirectly. As concluded above, transportation and infrastructure exist to serve the range of recreational, commercial, and residential uses in the project vicinity. Although existing roads and infrastructure would be improved/modified with implementation of the proposed TTM, the project does not involve the extension of roads or other infrastructure into undeveloped areas. Therefore, the project would not foster population growth through the extension of roads or other infrastructure.

Implementation of the proposed TTM would result in the future development of 48 single-family dwelling units (DU). As indicated in Table 5.12-4, Proposed Project Compared to Existing Conditions, the population growth associated with the future residential development (48 DU) would be approximately 89 persons. This forecast population would represent approximately 0.4 percent growth over the City’s existing 2010 population of approximately 24,168 persons; refer to Table 5.12-4. Therefore, the project would foster direct growth in the City’s population through the residential development anticipated by the proposed TTM. The population growth associated with the proposed project is considered a less than significant impact, based on the following factors:

- The forecast population growth would represent only a nominal increase (approximately 0.4 percent) over the City's existing 2010 population of approximately 24,168 persons; refer to Table 5.12-4.
- According to the General Plan, the City's housing stock is forecast to total approximately 14,751 DU at buildout, with a resultant population of approximately 24,810 persons; refer to Table 5.12-5, *Proposed Project Compared to Seal Beach General Plan*. Based upon the 2010 Census, the City has 14,558 total housing units. Upon buildout of the proposed 48-lot subdivision, the City's housing stock would total 14,606 DU, with a resultant population of approximately 24,257 persons. The proposed TTM would not cause the City's buildout population forecast to be exceeded. Therefore, project implementation would induce less than significant population growth in the City with respect to local forecasts. Additionally, the project's anticipated population growth would occur over a 15-year period, and the necessary services and infrastructure would be made available/implemented prior to occupancy.
- SCAG projects that the City's housing stock will total 14,847 DU by 2015, with a resultant population of approximately 27,616 persons; refer to Table 5.12-6, *Proposed Project Compared to SCAG*. Upon buildout of the proposed 48-lot subdivision, the City's housing stock would total 14,606 DU, with a resultant population of approximately 24,257 persons. The proposed TTM would not cause SCAG's 2015 population forecast for the City to be exceeded. Therefore, project implementation would induce less than significant population growth in the City with respect to regional forecasts. Additionally, project implementation would be in furtherance of meeting the City's 2006-2014 regional housing need within the above-moderate income category. As indicated in Table 5.12-3, the City's fair share housing needs allocation for the 2006-2014 planning period is 57 housing units, including 24 units within the above-moderate income category.

At the regional level, the emphasis has been placed primarily on achieving a balance of employment and housing opportunities within the subregions. This regional concept, referred to as jobs/housing balance, encourages the designation and zoning of sufficient vacant land for residential uses with appropriate standards to ensure adequate housing is available to serve the needs derived from the local employment base. The jobs/housing ratio can be used as the general measure of balance between a community's employment opportunities and the housing needs of its residents. A rate of 1.0 or greater generally indicates that a City provides adequate employment opportunities, potentially allowing its residents to work within the City. A desirable jobs/housing balance improves regional mobility (traffic), reduces vehicle miles traveled, and improves air quality. Conversely, imbalance between a City's jobs and housing increases commutes, with resultant increases in traffic volumes and air emissions, and overall reduces the quality of life.

Based on approximately 11,559 jobs (year 2010 estimate)¹ and 14,558 DU (see Table 5.12-2, *Housing Data*), the City's jobs/housing ratio is approximately 0.79, which indicates that the City has insufficient employment opportunities for its residents. At buildout of the proposed Tentative Tract Map, the City's jobs/housing ratio would remain at 0.79 (based on

¹ Southern California Association of Governments, *Adopted 2008 RTP Growth Forecast by City*, <http://www.scag.ca.gov/forecast/adoptedgrowth.htm>, October 25, 2011.

approximately 11,559 jobs and 14,606 DU [see Table 5.12-4, *Proposed Project Compared to Existing Conditions*]. Given development of employment-generating land uses (i.e., visitor-serving) on the site has been deemed to be physically and economically infeasible (refer to Table 5.1-5, *Coastal Act Policies Consistency Analysis* [response to Section 30213], and the City's jobs/housing ratio would remain unchanged, the proposed project would result in a less than significant impact regarding jobs/housing balance.

Precedent-Setting Action. As demonstrated in Section 5.1, *Land Use and Relevant Planning*, the proposed project would require amendments to the General Plan, Official Zoning Map, and Zoning Code, in order to allow the proposed Specific Plan Amendment. However, given that the project involves a land use plan and development regulations that would apply solely within the Specific Plan Area, and the nature of the project and minimal amount of population growth it would generate, the proposed project would not be considered growth inducing with respect to a precedent-setting action.

Development or Encroachment of Open Space. The project is considered an infill development, as the site has been previously disturbed and is surrounded by urbanized uses. Therefore, the project would not be growth-inducing with respect to development or encroachment into an isolated or adjacent area of open space.

Overall, project implementation would not be considered growth inducing, inasmuch as it would not remove an impediment to growth, foster economic expansion, establish a precedent-setting action, or develop or encroach on an isolated or adjacent area of open space. The project would be considered growth inducing with respect to fostering population growth through construction of additional housing. However, this impact is considered less than significant, since project implementation would represent only a nominal increase over the City's existing population. Additionally, project implementation would not cause the General Plan buildout or SCAG 2015 population forecasts to be exceeded.

6.4 ENERGY CONSERVATION

Public Resources Code Section 21100(b)(3) and *CEQA Guidelines* Appendix F requires a description (where relevant) of the wasteful, inefficient, and unnecessary consumption of energy caused by a project. In 1975, the California State Legislature adopted Assembly Bill 1575 (AB 1575) in response to the oil crisis of the 1970s. Appendix F of the *CEQA Guidelines* provides guidance for assessing potential impacts that a project could have on energy supplies, focusing on the goal of conserving energy by ensuring that projects use energy wisely and efficiently. Because Appendix F does not include specific significance criteria, this threshold is based the goal of Appendix F. Therefore, an energy impact is considered significant if the proposed project would:

- Develop land uses and patterns that cause wasteful, inefficient, and unnecessary consumption of energy or construct new or retrofitted buildings that would have excessive energy requirements for daily operation.

6.4.1 PROJECT ENERGY CONSUMPTION

SHORT-TERM CONSTRUCTION

In 1994, the U.S. Environmental Protection Agency (EPA) adopted the first set of emission standards (Tier 1) for all new off-road diesel engines greater than 37 kilowatts (kW). The Tier 1 standards were phased in for different engine sizes between 1996 and 2000, reducing NO_x emissions from these engines by 30 percent. The EPA Tier 2 and Tier 3 standards for off-road diesel engines are projected to further reduce emissions by 60 percent for NO_x and 40 percent for particulate matter from Tier 1 emission levels. In 2004, the EPA issued the Clean Air Non-road Diesel Rule. This rule will decrease emissions from off-road diesel engines by more than 90 percent, and will be fully phased in by 2014.

The project is anticipated to begin construction in 2012 and occur over approximately three years. Construction in 2012 would consist of demolition, site clearing and grading, and paving necessary for installing the proposed passive park space, building pads, and backbone infrastructure required for implementation of Tentative Tract Map No. 17425. It was conservatively assumed that 24 homes would be constructed and painted in 2013 and 24 homes in 2014. Table 6-1, Construction Fuel Consumption, provides an estimate of construction fuel consumption based on information provided by the CalEEMod air quality computer model; refer to Appendix 11.6, Air Quality/Greenhouse Gas Emissions Data.

**Table 6-1
Construction Fuel Consumption**

Equipment	Quantity	Horsepower	Load Factor	Fuel Consumption Rate ¹ (gallons per hour)	Duration ² (total hours)	Total Fuel Consumption ^{3,4} (gallons)
Air Compressor	2	78	0.48	1.50	624	936
Concrete/Industrial Saw	1	81	0.73	2.37	120	284
Crane	2	208	0.29	2.41	4,000	9,640
Excavator	5	157	0.38	2.39	1,720	4,111
Forklift	4	149	0.20	1.19	7,000	8,330
Generator Set	2	84	0.74	2.49	4,000	9,960
Grader	1	162	0.41	2.66	680	1,809
Off-Highway Truck	1	381	0.38	8.69	440	3,824
Paver	2	89	0.42	1.50	320	480
Paving Equipment	2	82	0.36	1.18	320	378
Roller	2	84	0.38	1.28	320	410
Rubber Tired Dozer	3	358	0.40	5.73	920	5,272
Scraper	2	356	0.48	6.84	1,360	9,302
Tractor/Loader/Backhoe	4	75	0.37	1.11	4,360	4,840
Welder	6	46	0.48	0.88	9,000	7,920
TOTAL⁴						67,486

Notes:

1. Derived using the following equation:
Fuel Consumption Rate = Horsepower x Load Factor x Fuel Consumption Factor
Where:
Fuel Consumption Factor for a diesel engine is 0.04 gallons per horsepower per hour (gal/hp/hr) and a gasoline engine is 0.06 gal/hp/hr.
2. Total hours of duration derived from CalEEMod modeling results; refer to Appendix 11.6, Air Quality/Greenhouse Gas Emissions Data.
3. Total Fuel Consumption calculated using the following equation:
Total Fuel Consumption = Duration in Hours x Fuel Consumption Rate
4. Values may be slightly off due to rounding.

Source: Refer to Appendix 11.6, Air Quality/Greenhouse Gas Emissions Data, for CalEEMod assumptions used in this analysis.

As indicated in Table 6-1, project construction would consume a total amount of approximately 67,486 gallons of fuel. There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or State. Mitigation Measures AQ-1 and AQ-2 would implement dust control techniques (i.e., daily watering), limitations on construction hours, and adherence to SCAQMD Rules 402 and 403 (which require watering of inactive and perimeter areas, track out requirements, etc. Additionally, all diesel fueled construction vehicles would be required to meet the latest emissions standards. Therefore, it is expected that construction fuel consumption associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature.

LONG TERM OPERATIONS

Transportation Energy Demand

Pursuant to the Federal Energy Policy and Conservation Act of 1975, the National Highway Traffic and Safety Administration (NTSA) is responsible for establishing additional vehicle standards and for revising existing standards. Since 1990, the fuel economy standard for new passenger cars has been 27.5 miles per gallon (mpg). Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 mpg. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with Federal fuel economy standards is not determined for each individual vehicle model. Rather, compliance is determined based on each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the United States.

Trip generation rates provided in Appendix 11.5, *Traffic Impact Analysis*, and the daily vehicle miles traveled (VMT) provided in Appendix 11.6, *Air Quality/Greenhouse Gas Emissions Data*, were used to estimate vehicle fuel consumption associated with the proposed project. Table 6-2, *Project Operational Fuel Consumption*, provides an estimate of the daily fuel consumed by vehicles traveling to and from the proposed project site. As indicated in Table 6-2, operation of the proposed project is estimated to consume approximately 200.90 gallons of fuel daily. The project would involve operations typical of residential uses, requiring passenger vehicle trips for residents. However, the project would not result in any unusual characteristics that would result in excessive long-term operational fuel consumption. Additionally, the proximity of the project site to existing transit stops would result in reduced fuel consumption. Fuel consumption associated with vehicle trips generated by the project would not be considered inefficient, wasteful, or unnecessary in comparison to other similar residential developments in the region.

Other Non-Motorized Transportation Options

The project vicinity is currently served by bus transit lines operated by Long Beach Transit (Line A). The nearest transit stop to the project site is located at the corner of Marina Drive and North Marina drive, approximately 0.12 miles to the northwest. The proximity of the project site to existing transit would reduce the number of trips to and from the project site. The proposed project would not result in the inefficient, wasteful, or unnecessary consumption of transportation energy.

**Table 6-2
Operations Fuel Consumption**

Vehicle Type	Percent of Vehicle Trips ¹	Daily Trips ²	Daily Vehicle Miles Traveled ³	Average Fuel Economy (miles per gallon) ⁴	Total Daily Fuel Consumption (gallons) ⁵
Passenger Cars	82	460	3,127	21.60	144.77
Light/Medium Trucks	14	79	534	17.20	31.05
Heavy Trucks/Other	4	22	153	6.10	25.08
TOTAL⁶	100	561⁷	3,814⁸	--	200.90
Notes: 1. Percent of Vehicle Trip distribution based on trip characteristics within the CalEEMod model. 2. Daily Trips calculated by multiplying the total daily trips by percent vehicle trips (i.e., Daily Trips x percent of Vehicle Trips). 3. Daily Vehicle Miles Traveled (VMT) calculated by multiplying percent vehicle trips by total VMT (i.e., VMT x percent of Vehicle Trips). 4. Average fuel economy derived from the Department of Transportation. 5. Total Daily Fuel Consumption calculated by dividing the daily VMT by the average fuel economy (i.e., VMT/Average Fuel Economy). 6. Values may be slightly off due to rounding. 7. Based upon data within the <i>Ocean Place Residential Project Traffic Impact Analysis</i> , prepared by Linscott, Law & Greenspan Engineers, dated October 27, 2011; refer to Appendix 11.5, Traffic Impact Analysis . 8. Total VMT are the reduced VMT (from project design features) obtained from the CalEEMod model.					
Source: Refer to Appendix 11.6, Air Quality/Greenhouse Gas Emissions Data , for CalEEMod assumptions used in this analysis.					

Building Energy Demand

The proposed project would be expected to demand 309.76 megawatt hours (MWh) of electricity per year and 2,029,698.24 kiloBritish Thermal Units (kBtu) of natural gas. As concluded in [Section 5.13, Public Services and Utilities](#), Southern California Edison (SCE) is currently able to supply enough electricity to accommodate the needs of the region. Any land use that would demand enormous amounts of electricity could have significant impacts on the electrical network. The proposed project would not demand a significant amount of electricity. Therefore, it is anticipated that SCE could adequately supply the proposed project. SCE and the General Plan have established policies to conserve and reduce the quantity of electricity consumed within the City. Policies include minimizing electrical consumption through site design and use of efficient systems, reviewing electrical conservation programs, and installing energy-efficient appliances and equipment.

The project would involve operations typical of a residential subdivision, requiring electricity and natural gas for typical lighting, climate control, and day-to-day activities. Additionally, as stated in [Table 5.7-3, Project Consistency with GHG Emissions Reductions Strategies](#), the proposed project would incorporate several water, energy, solid waste, and land use efficiency measures. Therefore, the project would not be considered inefficient, wasteful, or unnecessary in comparison to other similar residential subdivisions within the region.

Energy Efficiency Measures

Title 24, California's Energy Efficiency Standards for Residential and Non-residential Buildings, was established by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption, and provide energy efficiency standards for residential and non-residential buildings. In 2010, the CEC updated Title 24 standards with more stringent requirements. The 2010 Standards are expected to substantially reduce the growth in electricity and natural gas use. Additional savings result from the application of the Standards on building

alterations. For example, requirements for cool roofs, lighting, and air distribution ducts are expected to save about additional of electricity. These savings are cumulative, doubling as years go by.

Additionally, implementation of the project's design features (i.e., high efficiency lighting, energy efficient appliances, low-flow faucets, toilets, and showers, water-efficient irrigation systems, and exclusion of hearths) would further reduce energy consumption.

The project would adhere to all Federal, State, and local requirements for energy efficiency, including the Title 24 standards, as well as the project's design features. The proposed project would not result in the inefficient, wasteful, or unnecessary consumption of building energy.

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